

WEEKLY WAVE



THE UNIVERSITY OF ARIZONA
COOPERATIVE EXTENSION

WATER RESOURCES RESEARCH CENTER



November 9, 2023 / Volume 11, Issue 32

The Water Resources Research Center - a research unit of the [College of Agriculture, Life and Environmental Sciences](#) and an Extension unit in [UA Cooperative Extension](#) within the Division of Agriculture, Life & Veterinary Sciences & Cooperative Extension.
[Land Acknowledgement.](#)

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IN THIS ISSUE: Student Posters, Seminar Recap, Agricultural Water Management, APW, ShanghaiRanking

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WRC 2024
ANNUAL
CONFERENCE

IMPLEMENTING WATER SOLUTIONS THROUGH PARTNERSHIPS

MARCH 12-13

University of Arizona
Student Union Grand Ballroom



Image: Clayton B. Lyon

WRRC 2024 Annual Conference – Student Poster Session

The WRRC is pleased to invite students from throughout Arizona to submit abstracts for posters for our 2024 Annual Conference, *Implementing Water Solutions Through Partnerships*, March 12–13, at the University of Arizona Student Union. This year's poster session will be held during the conference reception on the evening of Tuesday, March 12, immediately following the afternoon's conference program. Students from any educational institution in Arizona are invited to submit an abstract for the poster session! The evening poster session and reception will have food, drinks, and a panel of distinguished judges to award cash prizes to the best student posters!

Poster abstracts should highlight research, management, or community engagement projects relating to water in Arizona or the Southwest region. Join us for the 2024 conference and reception for an excellent opportunity to share your water projects and network with other students, researchers, industry professionals, and leaders from throughout the water world. Abstracts are due on December 15, 2023. Submit an abstract today and share this announcement with your network!

Image: Clayton B. Lyon. Grad student Zoey Reed-Spitzer presents her poster at the WRRC 2023 Annual Conference.

[More info](#)

EVENTS



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CALL FOR ABSTRACTS

The University of Arizona Water Resources Research Center invites abstracts for conference presentations and posters describing projects that implement solutions to Arizona's water resources challenges.

- **Water and Nature**
- **Infrastructure and Augmentation**
- **Water, Energy, and Food**
- **Other Solutions**

Image: Clayton B. Lyon

WRRC Water Webinars: 104(b) Student Research Presentations

Date: November 28 and 30, 2023
Time: 12:00 pm – 1:15 pm Arizona Time
Location: [Nov 28 Zoom](#); [Nov 30 Zoom](#)

Nov 28: [Student Water Research Highlights Part I](#)

1. **Assessing the Impact of Climate Change on Localized Flooding and Affected Populations;** Adriana Arcelay, *Doctoral Student, University of Arizona*
2. **Three-Dimensional Characterization of a Deep Karst Aquifer Beneath the North Rim of the Grand Canyon;** Blase Lasala, *Grad Student, Northern Arizona University*



Nov 30: [Student Water Research Highlights Part II](#)

1. **Increasing Water Storage in Arid Soils with Biological Applications**; Dustin Fancher, *Graduate Student, Department of Environmental Science, University of Arizona*
2. **Low-Energy Inland Brackish Water Desalination**; Arianna Tariqi, *PhD Student, Department of Chemical and Environmental Engineering, University of Arizona*

Upcoming WRRC Co-Sponsored Events

Dec 5: [NVIS Fall 2023 Seminar: Culture, Education, and Water Sovereignty in Southern California Tribal Communities](#)

NEWS

Innovating Water Policy by Increasing Collaboration

The WRRC Water Webinar on November 2 featured the third candidate for the Associate Director and Extension Specialist position at the WRRC. UArizona alum Emily V. Bell is an assistant professor of Public Administration and Policy at the University of Georgia. In her presentation, she described the short- and long-term risks of climate change on Arizona's farming, energy production, and urbanization that motivate her goals of innovating water policy to improve water management while considering a wide range of stakeholder values. Her three main areas of work include collaborative water governance, developing decision-making support tools, and understanding stakeholder perspectives about water. Bell shared past successes in her research experience including uncovering state water planning shortcomings, the development of a "stakeholder opinion dictionary," and a compliance assessment tool that can influence managerial, technical, and financial decisions for state agencies. Her goal for the WRRC is to advance the institution into a lead collaborator position with the Governor's Water Policy Council members, utilizing strategic scenario planning that integrates all stakeholder representation.



- [View the Recording](#)
- [More Info](#)
- [Link to Bell's Website](#)

Call for Papers: Agricultural Water Management Special Issue

The editors of "[Water Scarcity Solutions for Irrigated Agriculture in the Warming Western U.S.](#)," a special issue of the journal *Agricultural Water Management*, invite submissions to this collection. This special issue calls for research-informed solutions that can relieve pressure on the West's water resources while maintaining the viability of agriculture in the region and fostering a transition to sustainable practices. WRRC Director Sharon B. Megdal is among the guest editors, joined by Noah Silber-Coats from the United States Department of Agriculture (USDA)



Southwest Climate Hub/Jornada Experimental Range, Lauren Parker from the USDA California Climate Hub, Emile Elias from the USDA Southwest Climate Hub, and Alexander “Sam” Fernald from the New Mexico Water Resources Research Institute at New Mexico State University. The issue has two main goals. First, to illuminate the historic development of irrigated agriculture in the West, especially highlighting shifts in cropping patterns and irrigation technologies that have unfolded over the past several decades and understanding how these shifts have contributed to the imbalance of water supply and demand at a regional and sub-regional scale. Second, to highlight research that explores solutions for more effectively managing agricultural water use in this context. Topics could include novel irrigation technologies, decision-support tools and education programs for irrigators, alternative low water-use crops, or on-farm aquifer recharge. While case studies are welcomed, the editors especially encourage the submission of papers that synthesize research and practice on a particular topic. Submissions should address the viability of solutions, including their limitations, obstacles to adoption, drawbacks, and unintended consequences. The conception of “The West” for this issue is broad, and contributions are welcomed from across the irrigated agricultural landscapes of arid and semi-arid North America, as well as those that offer a comparative perspective from arid regions across the globe.

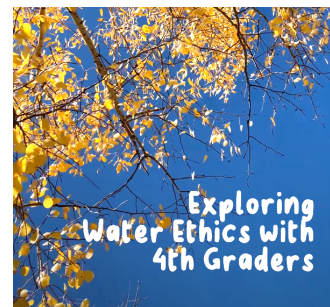
Image: A field of guayule in Arizona, WRRRC 2023 Arroyo

[More Info](#)



Branching Out into Water Ethics

How do we inspire young learners to become creative and critical thinkers, problem solvers, ethical decision-makers, and stewards of our environment? Each year, fourth-grade students from across Arizona participate in the Arizona Project WET (APW) Water Festival program, first completing the curriculum in the classroom and then exploring and engaging with large-scale models about the water cycle, watersheds, groundwater system, and water conservation technology, and how we can conserve water. This year, the Coconino Plateau Watershed Partnership (CPWP) kicked off the annual fourth-grade [Water Ethics Contest](#) at the Flagstaff Water Festival. The goal is to keep the conversation about water conservation in the classroom alive and promote stewardship through the identification, evaluation, reflection, and interpretation of water issues. APW and CPWP members also extend in-classroom learning opportunities on water conservation post-festival.



[Read More](#)

[Water Ethics Contest](#) [2023 Water Ethics Video](#)

UArizona Earns Global Top 10 Designation for Water Resources

The University of Arizona has once again ranked in the top 10 water resources research programs throughout the world. According to the 2023 Global Ranking of Academic Subjects, which was recently released by ShanghaiRanking, UArizona earned 8th place

internationally and 2nd in the United States in the area of water resources. UArizona has consistently ranked in the top ten of global water research programs since ShanghaiRanking began ranking the programs in 2017. To compile its rankings, ShanghaiRanking's Global Ranking of Academic Subjects scores more than 5,000 universities from around the world across 55 subjects in the categories of natural sciences, engineering, life sciences, medical sciences, and social sciences. Criteria for the rankings include the number of papers produced by an institution in a particular subject area, the number of papers published in top journals, the level of international collaboration between institutions, and the number of awards won by university staff.



[Full List of Rankings](#)

WATER JOBS

City of Goodyear [Water Conservation Specialist](#)

Please visit [WRRC's website](#) for a complete listing of water jobs & opportunities.



ANNOUNCEMENTS

- **Nov 12:** [Arizona Public Media: "Stewart Udall: Politics of Beauty" Documentary Screening and Panel](#)
- **Nov 13:** [SCN: Green Infrastructure Funding Options for AZ: WIFA, WIFIA, ADEQ 604b Funding Roundtable](#)
- **Nov 14:** [AHS Tucson Chapter Monthly Meeting: Modeling Post-Fire Hydrology in the Southwest](#)
- **Nov 14:** [Assured Water Supply Committee Meeting](#)
- **Nov 14:** [Arizona Water Protection Fund Commission Meeting](#)
- **Nov 14–16:** [US Water Alliance One Water Summit 2023](#)
- **Nov 16:** [Rural Groundwater Committee Meeting](#)
- **Nov 16:** [Bureau of Reclamation Funding Opportunities for Water Resources Planning & Projects Presentation](#)
- **Nov 16:** [ASU Flow 2023: A Water Year Event for Researchers and Practitioners](#)

- **Nov 22:** [BSMAR18 – Abstract Submission Deadline](#) **EXTENDED!**
- **Nov 27:** [Equity in STEAM Initiative 3.0 – Application Deadline](#)
- **Nov 28:** [WRRRC Water Webinar: 104\(b\) Student Research Presentations \(Part I\)](#)
- **Nov 28:** [WRRRC 2024 Annual Conference: Implementing Water Solutions Through Partnerships – Abstract Deadline](#) **EXTENDED!**
- **Nov 29:** [Governor’s Water Policy Council Meeting](#)
- **Nov 30:** [WRRRC Water Webinar: 104\(b\) Student Research Presentations \(Part II\)](#)
- **Dec 5:** [NVIS Fall 2023 Seminar: Culture, Education, and Water Sovereignty in Southern California Tribal Communities – Co-sponsored by the WRRC](#)
- **Dec 5–7:** [AWWA North American Water Loss Conference & Exposition](#)
- **Dec 6:** [AZ Water Association 2023 Conservation Program Measurement and Integration Workshop](#)
- **Dec 11–15:** [AGU23: Wide. Open. Science](#)
- **Dec 12–13:** [Western SARE: Building Partnerships for Agricultural Sustainability Summit](#)
- **Dec 13–15:** [2023 Colorado River Water Users Association \(CRWUA\) Annual Conference](#)
- **Dec 15:** [WRRRC 2023 Photo Contest: Water Scarcity & Extreme Weather – Submission Deadline](#)
- **Dec 15:** [WRRRC 2023 Annual Conference – Student Poster Abstract Deadline](#)
- **Dec 30:** [Water Quality Research Foundation – Poster Submission Deadline](#)
- **Jan 1, 2024:** [RiversEdge West 2024 Conference – Poster Presentation Abstract Deadline](#)
- **Jan 8, 2024:** [NGWA Conference: Groundwater in the PFAS Era: Stressors, Protection, & Compliance – Abstract Submission Deadline](#)
- **Jan 15, 2024:** [StormCon 2024 – Abstract Submission Deadline](#)
- **Jan 22–24, 2024:** [Growing Water Smart: Integrated Water and Land Use Planning Workshop](#)
- **Jan 30, 2024:** [Arizona Association of Women in Water& Agriculture \(Wine, Women & Water Reception\) – Co-sponsored by the WRRC – Save the Date!](#)
- **Jan 31, 2024:** [Arizona Association of Women in Water& Agriculture Annual Meeting – Co-sponsored by the WRRC – Save the Date!](#)
- **Feb 2, 2024:** [David R. Maidment Award for Exemplary Contributions to Water Resources Data and Information Systems – Nomination Deadline](#)
- **Feb 11–13, 2024:** [AWWA/WEF Young Professionals Summit](#)
- **Feb 26–28, 2024:** [Water Resources Management & Sustainability: Solutions for Arid Regions 2nd International Conference](#)
- **Feb 27–29, 2024:** [2024 Southwest Adaptation Forum – Save the Date](#)
- **Mar 5–7, 2024:** [RiversEdge West 2024 Conference – Restoration for the Future: Promoting Resilience in Our Rivers and Communities](#)
- **Mar 10–16, 2024:** [National Groundwater Awareness Week](#)
- **Mar 11–14, 2024:** [AWWA WateReuse 2024 Symposium](#)
- **March 12–13, 2024:** [WRRRC 2024 Annual Conference: Implementing Water Solutions Through Partnerships](#)
- **Mar 25–27, 2024:** [AWRA 2024 Geospatial Water Technology Conference](#)
- **Apr 3–6, 2024:** [BSMAR18](#)
- **Apr 8–10, 2024:** [AWRA 2024 Spring Conference](#)
- **Apr 16–17, 2024:** [NGWA Conference: Groundwater in the PFAS Era: Stressors, Protection, & Compliance](#)
- **Jun 10–13, 2024:** [AWWA 2024 Annual Conference & Expo \(ACE24\): Transforming Our Water Future](#)
- **Aug 27–29, 2024:** [StormCon 2024](#)

PUBLICATIONS & MEDIA

Establishing a New IFWLC Training, Research, and Development Center: October 2023 Progress Report

After the federal Cooperative Instream Flow Service Group (CIFSG) ceased to exist in 2001, no equivalent centralized uniform source of instream flow and water level conservation (IFWLC) training and support services has been established. The [Instream Flow Council](#) (IFC) and [American Fisheries Society](#) (AFS) seek to address this void through a multi-state conservation grant project to first assess the needs and support for establishing a new IFWLC training, research, and development center (Center), and contingent on positive outcomes of the assessment, develop strategies and pathways forward to establish and operate the Center. The results of the completed assessment portion of this project established the need, support, strategies, and pathways forward to develop the Center. The next project steps will include crafting a business plan to facilitate implementation of the assessment recommendations and execution of other preliminary actions required to establish and operate the Center. Future updates will be posted in 2024. [View the Report](#)

Green Stormwater Infrastructure in the City of Prescott — Recorded Webinar

In 2020, the City of Prescott published its Stormwater Management Plan, outlining best management practices and strategies for the City's stormwater management through green infrastructure and low-impact development (LID). The City of Prescott recently received 604b funding from the Arizona Department of Environmental Quality (ADEQ) to evaluate its green infrastructure sites. View this webinar, hosted by the Sustainable Cities Network, to learn more about Prescott's approach to green infrastructure and low-impact development, especially when faced with challenges related to challenging topography and freezing temperatures. [Watch Here](#)

OTHER NOTICES

Call for Papers: StormCon 2024

StormCon, the leading conference on advancing the science and practice of stormwater management, will offer seven unique conference tracks: Green Infrastructure; Flood Modeling & Mitigation; Programs, Permits & Compliance; Transportation & Construction Stormwater; BMP Monitoring; Industrial Stormwater Management; and Erosion Control. Papers are solicited from municipal and industrial stormwater managers, engineering consultants and design professionals, researchers, regulatory personnel, and residential and commercial construction project managers. Please note that abstracts promoting proprietary products or companies will not be accepted. The deadline to submit an abstract is January 15, 2024. [More Info](#)

Fish and Wildlife Service National Fish Passage Program Funding

The National Fish Passage Program (NFPP), funded through the Bipartisan Infrastructure Law (BIL), is a voluntary program that provides direct technical and financial assistance to remove instream barriers, restore aquatic passage, and enhance watershed health. The program strives to deliver benefits, especially in disadvantaged communities, and improve economic vitality, including local employment, through infrastructure improvements and other actions that increase resilience to climate change impacts. Award sizes are expected to range between \$250,000 and \$10,000,000 in the form of grants and cooperative agreements. The closing date for applications is December 31, 2023. Award funding is expected to be announced May 1, 2024. For more information, visit [grants.gov](#) and search for opportunity number F24AS00062.

WaterSMART Aquatic Ecosystem Restoration Program

This grant is for Local governments, Tribal entities, and other partner organizations to study, design, and construct restoration projects that will enhance the health of fisheries, wildlife, and aquatic habitats. Grant funds range from \$500,000 to \$2 million. Completed

applications for the Aquatic Ecosystem Restoration Program are due Thursday, January 24th, 2024. [More Info](#)

EPA Wetland Program Development Grants

The goals of EPA's wetland program include increasing the quantity and quality of wetlands in the U.S. by conserving and restoring wetland acreage and improving wetland conditions. In addition to developing and/or refining wetland protection and management programs, EPA seeks to build wetlands programs to incorporate climate change and environmental justice considerations. The goal of this grant program is to develop the capacity of state, tribal, or local governments to increase the quantity and quality of wetlands in the US by conserving and restoring wetland acreage and improving wetland conditions. All applications must be submitted prior to November 20, 2023, at 8:59 PM PT. Grant awardees will receive funding by March 22, 2024. For more information on the WPDGs, visit the [EPA website](#).

USGS Groundwater and Streamflow Monitoring Funding

The USGS offers a cooperative agreement funding opportunity to state or local water-resources agencies that collect groundwater data to participate in the National Ground-Water Monitoring Network (NGWMN). Funds will be used to connect new data providers to the Network and to support existing data providers to maintain persistent data service and enhance the NGWMN. The funding for selected participants will be between \$5,000 and \$300,000 for Federal FY2024. The USGS's substantial involvement is anticipated to support new data providers during the site selection and classification process. These awards will be in the form of cooperative agreements. The closing date for FY2024 is January 18, 2023. For details on this funding opportunity, visit [grants.gov](#) and search for opportunity number G24AS00405.

ADEQ Seeks Comments on Advanced Water Purification Program

ADEQ is pleased to introduce the [Advanced Water Purification \(AWP\) Proposed Program Roadmap](#). This innovative program aims to convert treated wastewater into purified water, addressing water scarcity challenges in Arizona. Their goal is to introduce AWP as a viable option for Arizona communities, ensuring a safe, reliable, and sustainable drinking water supply. To that end, ADEQ invites all stakeholders and interested parties to contribute their input on the proposed Roadmap. Please send your comments to reuserulemaking@azdeq.gov by December 2, 2023.

[More Info](#)

Do you have a story idea, water job announcement, or event to share?

[Contact us here](#)